


RAIL WHEEL PLANT/BELA (INDIAN RAILWAYS) GOVT. OF INDIA		OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER, ADMINISTRATIVE BUILDING, VILLAGE-BELA, BLOCK- DARIAPUR, SARAN (CHHAPRA), BIHAR.
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MONTH WISE ANALYSIS OF GROUND WATER OCTOBER- 2017

- REF:** (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
(iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.)

Ground Water sample	UNIT	Limit as per IS10500:2012		October -2017	
		Limit (Max) (mg/l) Desirable	Permissible limit in the absence of alternative source	Borewell No. 1	Borewell No. 2
1. pH	--	6.5 to 8.5	--	7.58	7.49
2. Colour	Hazen	5	15	Colorless	Colorless
3. Turbidity on NTU	NTU	1	5	<1	<1
4. Total Dissolved Solids (TDS)	mg/l.	500	2000	430	530
5. Total Alkalinity as CaCO ₃	mg/l.	200	600	190	220
6. Total Hardness as CaCO ₃	mg/l.	200	600	210	240
7. Calcium as Ca	mg/l.	75	200	56	60
8. Magnesium as Mg	mg/l.	30	100	17	21.9
9. Sulphate as SO ₄	mg/l.	200	400	20	42
10. Chloride as Cl	mg/l.	250	1000	30	28
11. Nitrate as NO ₃	mg/l.	45	---	4.5	5.2
12. Iron as Fe	mg/l.	0.3	---	0.12	0.14
13. Arsenic as As	mg/l.	0.01	0.05	<0.001	<0.001
14. Fluoride as F	mg/l.	1.0	1.5	0.74	0.72
15. Total Coliform	MPN/100 ml	0	--	10	10

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MONTH WISE ANALYSIS OF NOISE SAMPLE OCTOBER -2017

- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
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Monitoring Location	Limit (Max) Leq: dBA	Test result	
		Day time Leq: dBA	Night time Leq: dBA
1. Near Main Gate	Day time- 75 dBA Night time- 70 dBA	51.4	42.8
2. Near ADM Building		48.6	41.4

Monitoring Location	Limit (Max) 90 dBA (as per Bihar Factories Rule, 1950)	Daytime dB	Night time dB
3. Near Final Wheel Processing Sec.	1- 105 ¾- 107	70.2	65.8
4. Near Furnace	½- 110 ¼- 115	93.6	89.4

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MONTH WISE ANALYSIS OF STACK EMISSION MONITORING OCTOBER-2017

- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
- (ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
- (iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

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STACK EMISSION MONITORING REPORT OCTOBER- 2017

Stack connected to Bag House attached with Electric Arc Furnace	Prescribed Standard Limit	Test result October 2017
a. PM mg / NM ³	50	46
b. SO ₂ mg / NM ³	Not specified	< 1 (BDL)
c. NO _x mg / NM ³	Not specified	110
d. Gas Temp °C	---	58
e. Velocity m/s	----	10.2

Stack connected to Draw Furnace	Prescribed Standard Limit	Test result October 2017
f. PM mg / NM ³	50	20
g. SO ₂ mg / NM ³	Not specified	< 1 (BDL)
h. NO _x mg / NM ³	Not specified	12
i. Gas Temp °C	---	42
j. Velocity m/s	----	7.2

Stack connected to Normalizing Furnace	Prescribed Standard Limit	Test result October 2017
k. PM mg / NM ³	50	35
l. SO ₂ mg / NM ³	Not specified	< 1 (BDL)
m. NO _x mg / NM ³	Not specified	38
n. Gas Temp °C	---	358
o. Velocity m/s	----	13.8

Stack connected to DG	Prescribed Standard Limit as per EP Act 1986 GSR 280E, Dated 11-04-2008	Test result October 2017
a. PM mg / NM ³	75	78
b. SO ₂ mg / NM ³	S in fuel < 2 %	146
c. NO _{2x} mg / NM ³	710	680
d. NMHC, mg/ NM ³	100	96
e. Co, mg/ NM ³	150	460
f. Gas Temp °C	---	190
g. Velocity m/s	----	20.8


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MONTH WISE ANALYSIS OF WASTE WATER FROM CANTEEN (BEFORE TREATMENT) OCTOBER-2017

- REF:** (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
(iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.,)

S.N	Parameters	Unit	Test Method	Result	CPCB Direction on STP dated 21-4-2015
1.	pH	-	APHA-4500	6.78	5.5 -9.0
2.	Colour	Hazen Unit	APHA-2120B	7	-
3.	Total suspended solids	Mg/l	APHA-2540D	112	20
4.	Total dissolved solids	Mg/l	APHA-2540B	840	2100
5.	BOD	Mg/l	APHA-5210B	40	10
6.	COD	Mg/l	APHA-5220D	130	50
7.	Oil and grease	Mg/l	APHA4500D	14.8	10
8.	Chloride as Cl	Mg/l	APHA-4500B	70	-
9.	Sulphate as SO ₂	Mg/l	APHA-4500E	56	-
10.	Ammonical N as N	Mg/l	APHA-5220D	18	5
11.	Total Kjeldahl Nitrogen as N	Mg/l	APHA-4500B	40	10
12.	Dissolved Phosphate	Mg/l	APHA-4500C	3.5	-

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MONTH WISE ANALYSIS OF POND WATER, OCTOBER-2017

- REF:** (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
(iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.)

S.N	Parameters	Unit	Test Method	Result
1.	pH	-	APHA-4500	7.7
2.	Colour	Hazen Unit	APHA-2120B	5
3.	Total suspended solids	Mg/l	APHA-2540D	20
4.	Total dissolved solids	Mg/l	APHA-2540B	410
5.	BOD	Mg/l	APHA-5210B	14.2
6.	COD	Mg/l	APHA-5220D	50
7.	Oil and grease	Mg/l	APHA4500D	2.8
8.	Chloride as Cl	Mg/l	APHA-4500B	45
9.	Sulphate as SO ₂	Mg/l	APHA-4500E	40
10.	Ammonical N as N	Mg/l	APHA-5220D	4.5
11.	Total Kjeldahl Nitrogen as N	Mg/l	APHA-4500B	12.8
12.	Dissolved Phosphate	Mg/l	APHA-4500C	0.74

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MONTH WISE MONITORING & ANALYSIS OF AMBIENT AIR QUALITY OCTOBER - 2017

- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
(ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
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(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.)

Month	Parameters	Limit(Max)	Near Main Gate	Near East Side Boundary Wall (Store Yard)	Near Main Store 2	Near ADM Building	Near Main Gate	Near East Side Boundary Wall (Store Yard)	Near Main Store 2	Near ADM Building
24 Hrs. Average Concⁿ in µg/m³										
<u>OCTOBER</u> 2017	01st Monitoring					02nd Monitoring				
	PM ₁₀	100 µg/m ³ (24 hours average)	60	68	68	60	64	30	65	65
	PM _{2.5}	60 µg/m ³ (24 hours average)	28	32	33	26	30	65	30	30
	SO ₂	80 µg/m ³ (24 hours average)	4.8	5.2	5.8	<4.0	5.2	4.8	5.2	<4.0
	NO ₂	80 µg/m ³ (24 hours average)	11.5	11.8	12.2	10.2	12.8	11.2	11.8	9.8